UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Information Transfer and Program Integration Division
Integrated Implementation Group (MD-12)
Research Triangle Park, NC 27711

FAX TRANSMISSION

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DATE: NUMBER OF PAGES (INCLUDING COVER SHEET): 2

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MESSAGE:

Let me know if you want the attachments — They are about 50 pages worth — correspondence between your offices.

Karen

NORTH DAKOTA DEPARTMENT OF HEALTH
Environmental Health Section

AQPS-01-

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September 7, 2001

Control : ITPID

Mr. John Seitz (MD-10)
Office of Air Planning &
Standards
USPEA Mailroom
Research Triangle Park, NC 27711

Dear John:

I enjoyed our visit during the ECOS meeting. As a follow-up to our discussions, I am enclosing documents that outline North Dakota's issues and concerns with the Prevention of Significant Deterioration (PSD) Program.

One of the primary PSD issues facing North Dakota is SO_2 increment consumption. The primary sources of SO_2 are seven lignite coal-fired electrical generating plants, although there are some oil and gas sources that also contribute. Historical dispersion modeling methodology tracks increment consumption using permitted emission limits for all sources on a continuous basis. We believe a more realistic method would use actual emissions data from Continuous Emission Monitors (CEM) that have become common throughout industry. We would like to pursue using such data, coupled with corresponding meteorological data, to track increment consumption. This approach would account for the poor correlation in emission rates between the plants. Another issue is how the Federal Land Manager certifications and variance procedures in the CAA affect increment.

We have enclosed copies of correspondence between our office and EPA Region VIII and an outline of the modeling protocol that we submitted to EPA Region VIII. After you have had a chance to review the documents, we will be happy to visit with you regarding any questions you may have.

Sincerely,

Francis J. Schwindt, Chief
Environmental Health Section

FJS/TLO:saj
Enc:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
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August 31, 2001

Mr. Jeff Burgess
North Dakota Department of Health
Environmental Health Section
1200 Missouri Ave.
Bismark, ND 58504-5264

Dear Jeff,

From recent discussions between our modeling staff members, I understand that Montana-Dakota Utilities (MDU) has contacted your department concerning the PSD permitting requirements for a large coal-fired power plant near Gascoyne, North Dakota. I also understand that your Department is in the process of developing guidance for the applicant on a modeling protocol for this project, and your staff has requested input from EPA on several issues. While EPA can provide an initial reaction to these issues here, as noted below in some cases these are unique circumstances, and we will need to confer with our headquarters counterparts to provide a final response. Thus, we expect to provide you with additional comments in a few weeks.

In the modeling protocol the applicant should commit to determining the maximum incremental impact of the source on nearby areas, and then compare the model predictions to the monitoring exemption levels contained in both the State and Federal PSD regulations at NDAC 33-15-15-01.4.d(3) and 40 CFR 51.166(i)(8), respectively. In our experience a 500 MW power plant is likely to have significant localized impacts on ambient levels of SO2, NO2, PM10 and Mercury, even after application of BACT. If the modeled levels indeed exceed the exemption levels, the State should require at least some preconstruction monitoring. In modeling close-in impacts of the source the existing EPA guideline model ISC3 would meet the regulatory modeling requirements for determining monitoring exemption thresholds, PSD Class II increments, and NAAQS compliance for distances within 50 km of the source.

The precise modeling requirements for predicting Class 1 impacts cannot be defined at this time. The State and EPA are in the process of refining the Calpuff modeling analyses for the Class 1 areas where SO2 increment violations have been predicted. These efforts will not be completed until base year emissions inventory issues have been resolved and the results of both studies reconciled. Thus, we don't expect that all the technical issues related to Class 1 increment modeling will be resolved until this winter.

In terms of the overall approach for the Class 1 modeling analysis in this permit, EPA's position is the same as that outlined in my June 25, 2001 letter to you on the cumulative increment analysis: 1) five years of meteorological data must be used, 2) no real-time pairing of emissions/meteorology data, 3) use of a consistent approach in calculating increment-consuming

emissions between base year and current year. In addition, the new source must be modeled at full allowable emission rates. We believe that the requirements for PSD permit modeling are quite clear in the EPA modeling guidelines, and we will not repeat them in detail here (see 40 CFR 51.166(l) and NDAC 33-15-15-01.4.f).

The final question that comes up in the protocol is to define the level of impact, if any, that the proposed new source can have on existing PSD Class 1 increment violations, and still be issued a PSD permit. I understand that the State is considering an interpretation of language on Page C.52 of the EPA New Source Review Workshop Manual in providing guidance to the applicant. The State's interpretation is that a new PSD permit for this source could be issued if it is shown to have an insignificant impact on the Class 1 areas with predicted violations, provided the State addresses the cumulative increment violations through the SIP process.

Region 8 does not agree with this interpretation of the NSR Workshop Manual and we believe that it conflicts with the language in the Clean Air Act (CAA). We believe that language in Section 165(a)(3) of the CAA requires that no permit shall be issued when a proposed PSD source is found to "cause, or contribute to, air pollution in excess of any maximum allowable increase [*i.e.*, PSD increment]..." The NSR Workshop Manual was written in 1990 before the issue of a Class 1 significance level was ever discussed. It is made clear in the NSR Workshop Manual that the significance levels only apply to Class II areas. Although proposed as a part of NSR reform, no Class 1 significance levels have ever been adopted in final form by EPA. Therefore, we believe any impact (not just one that is "significant") on a receptor in a Class 1 area that shows a violation of the PSD increment would be considered to contribute to that violation. Furthermore, Region 8 believes that, even if the impact is very small it is still contributing to a serious existing problem. As I have said in the past, we believe that in this situation the remedial SIP action must occur at the same time, or before, the permit is issued. For a very large source such as this, the PSD permitting process may take a full year or longer. This timing is not necessarily in conflict with the State's proposed schedule to make necessary revisions to the SIP to resolve the Class 1 violations. Depending on the scope of needed reductions, we believe that by the end of 2002 it may be feasible for the State to develop an overall remedial SIP plan that would allow additional growth such as the Gascoyne project.

Thank you for providing us the opportunity for input at this early stage of the PSD permitting process and we wish to continue to work cooperatively with the State on these difficult issues. As noted above, we will confer with headquarters on unique issues such as the significant impact language over the next few weeks for their interpretation. If you have any questions regarding our comments, please feel free to call me at (303) 312-6005.

Sincerely,

Richard R. Long, Director
Air and Radiation Program

cc: Chris Shaver, NPS
Sandra Silva, FWS
Deb Madison, Assiniboine and Sioux Tribes, Fort Peck Indican Reservation